Using Multiple Techniques and Measurements to Manage an IAIMS Environment

Susan Grajek, Ph.D., James McKay, B.S., John A. Paton, Ph.D., Nancy K. Roderer, M.L.S. Yale University School of Medicine

IAIMS -- Integrated Advanced Information Management Systems -- is an initiative originating in the National Library of Medicine whose goal is to provide members of the medical community with information when they need it where they need it. As a site implementing IAIMS concepts, the Yale-New Haven Medical Center needs continually to learn who needs which information in which locations. Such a question is best answered when it is asked periodically using a variety of techniques.

Thus far, we have used three different tools for assessing the effectiveness of our IAIMS environment: usage data, online surveys, and an annual questionnaire.

We collect usage data for information services delivered over our network and issue a monthly report summarizing usage and updating longitudinal usage charts.² The monthly report is distributed to senior Medical Center administrators, library and computing professionals, and information providers. We have used the data to help us make decisions about the number and location of public workstations, about adding, deleting or modifying delivery of specific information resources, and about increasing offerings in general resource categories (e.g., full-text databases, medical education software).

We have created an electronic survey, written in Visual Basic, to survey users of public Library NetMenu workstations. NetMenu² is a graphical menu-driven front-end to resources available via local networks or the Internet. We have run the survey for three two-week periods between December 1994 and April 1995, collecting over 900 responses. The survey is displayed at each workstation every 20th time someone tries to connect to a resource. The user must complete the survey before being connected to the resource. To lessen the interruption of work, the survey occupies a single screen, and consists of only 4 or 5 questions. Ouestions to provide demographic information are repeated during each survey period. The content of more substantive questions varies from survey period to survey period.

The survey has helped us learn who uses the public library workstations, the kinds of questions they are

seeking to answer, the frequency of their use, the degree to which they use more than one resource to answer questions, the degree to which they seek non-electronic resources to answer the same questions, and other locations from which they would like to use, or have used, NetMenu resources.

We also administer an annual questionnaire to a random, stratified sample of 200 members of the Medical Center faculty, students, and managerial & professional staff. The questionnaire is a crucial component of our IAIMS evaluation, because it enables us to learn the extent to which IAIMS is used by the Medical Center community and what the barriers are to those who do not use IAIMS resources. The 1995 survey, which had an overall response rate of 85%, indicated that 84% of respondents use library resources and 97% use computers. 76% of people with clinical and research questions use computers to find the answers. We also learned that awareness, rather than lack of interest or resources, seems to be the primary barrier to additional use of IAIMS resources.

Each component of our IAIMS evaluation provides unique information. The usage data tell us about IAIMS resources. The online survey tells us about IAIMS users. The questionnaire puts IAIMS use into the larger perspective of the entire Medical Center Community. Together, the three components provide the information we need to effectively manage the IAIMS environment being developed at the Yale-New Haven Medical Center.

References

- Paton, JA. A cooperative IAIMS implementation project tightly coupled to medical informatics research and development. Yale-New Haven Medical Center institutional project funded by NIH grant G08 LM05366 from the National Library of Medicine.
- 2. Shifman, MA, Clyman, JI, Paton, JA, Schippits, MG, Powsner, SM, Grajek, S, Roderer, NK, Miller, PL. NetMenu: experience in the implementation and evaluation of an institutional menu of information sources. In: Proceedings of the Seventeenth Annual Symposium on Computer Applications in Medical Care, Washington D.C. November 1993, pp. 554-558.